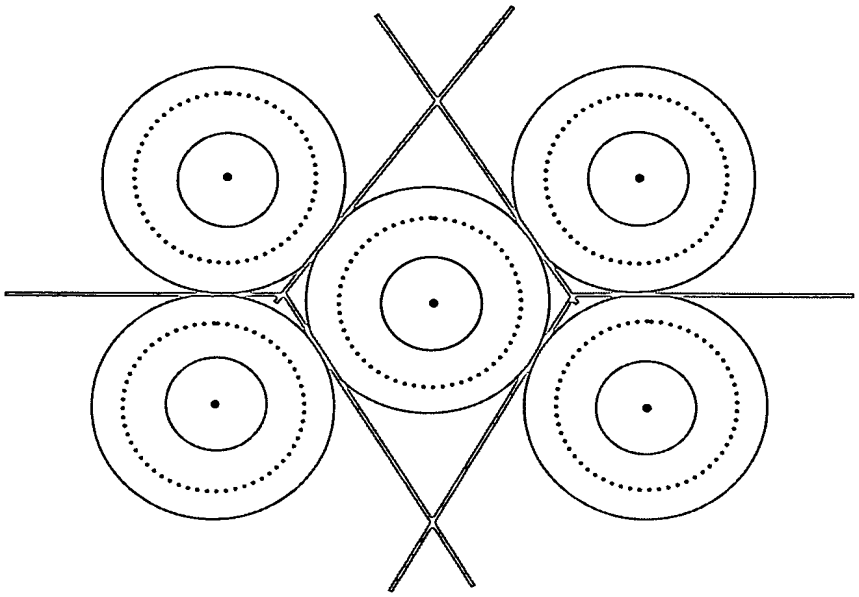
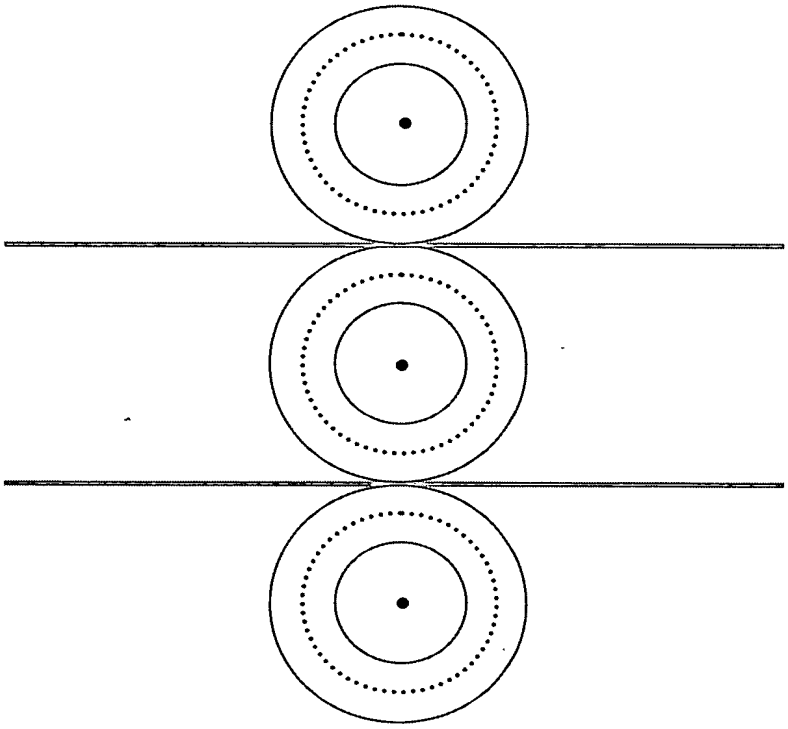


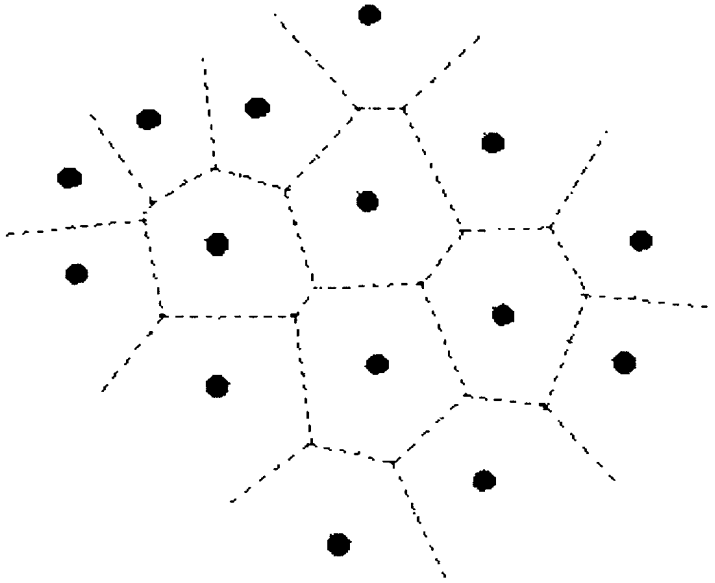
(a)



(b)

Fig. 1

(a)



(b)

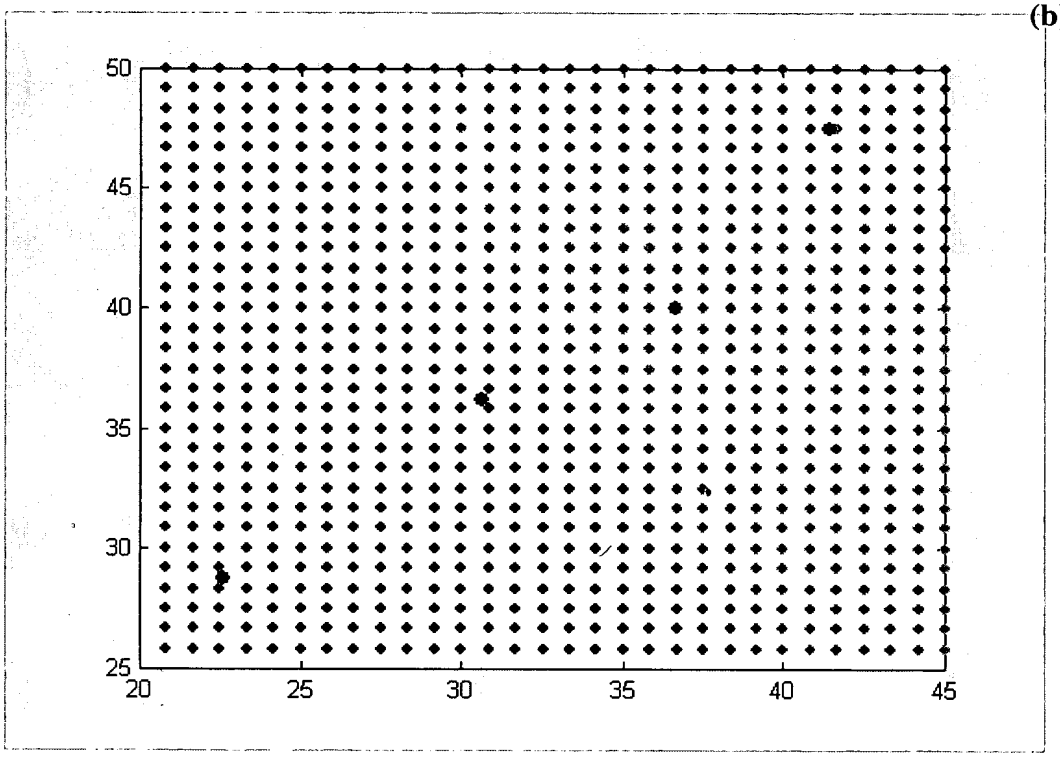


Fig. 2

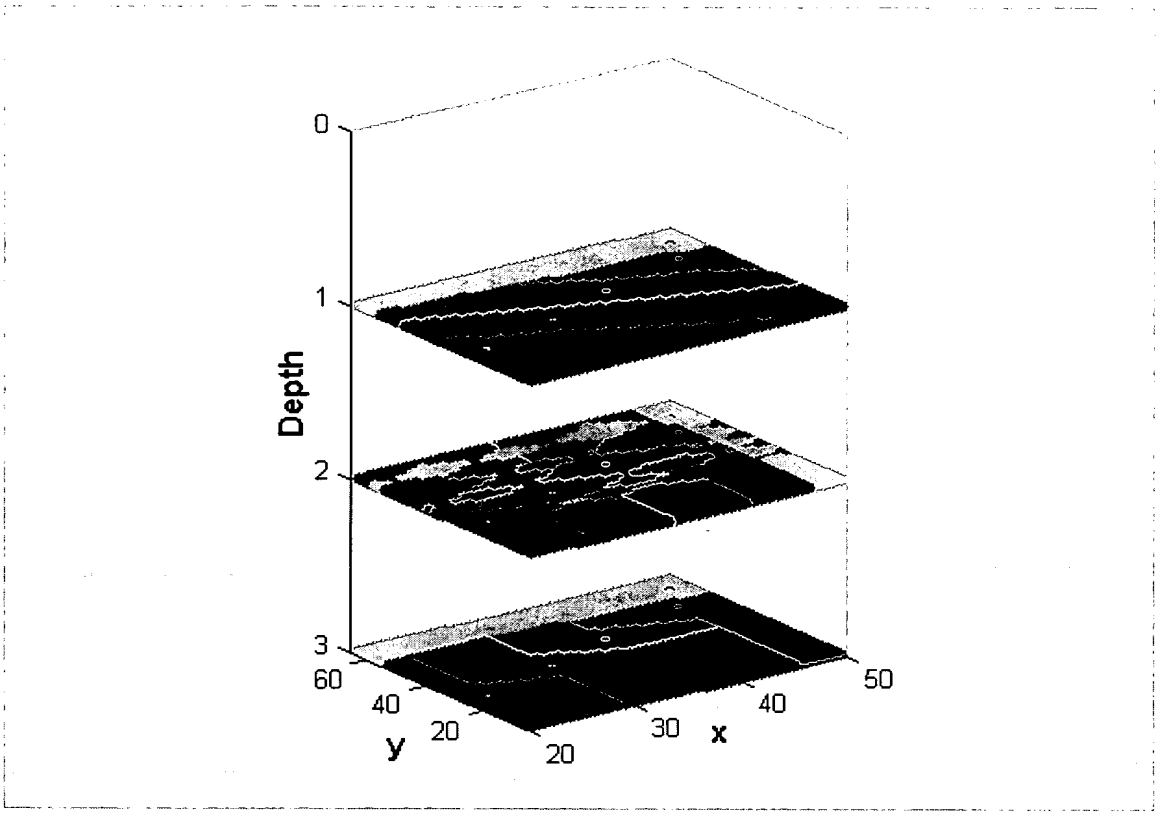


Fig. 3

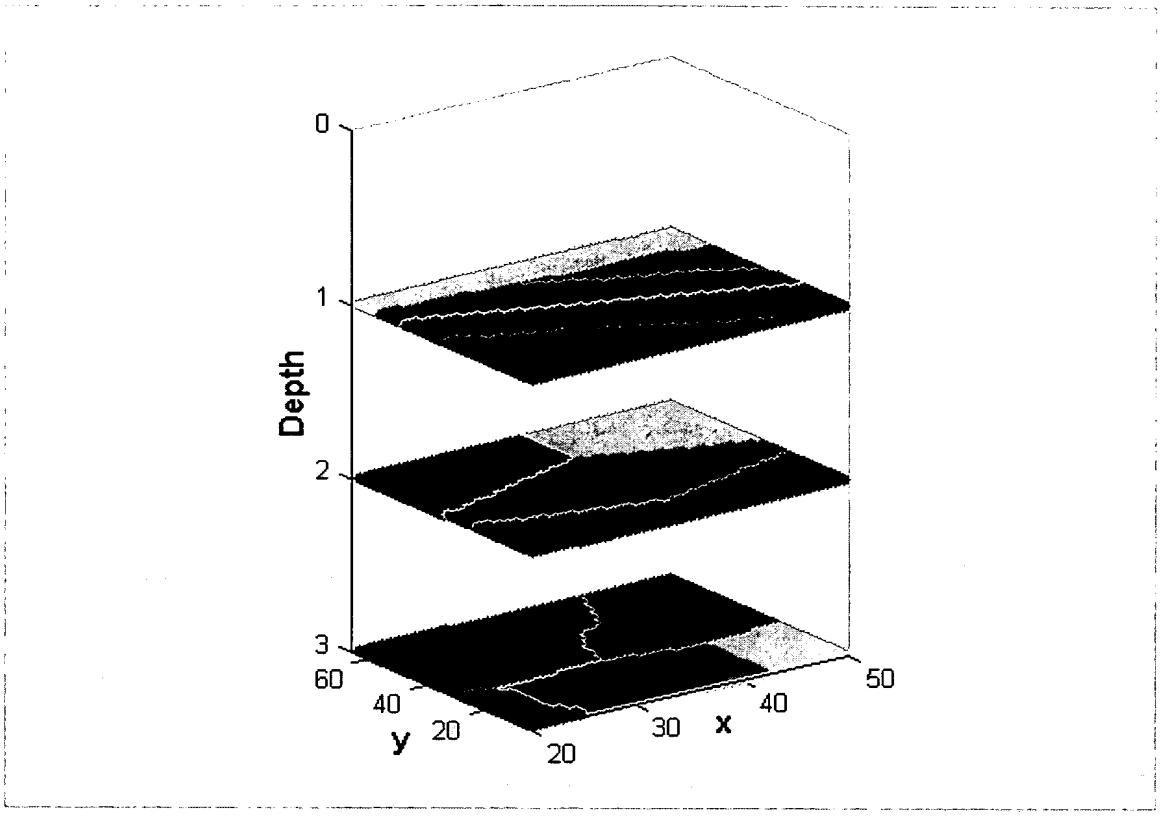


Fig. 4

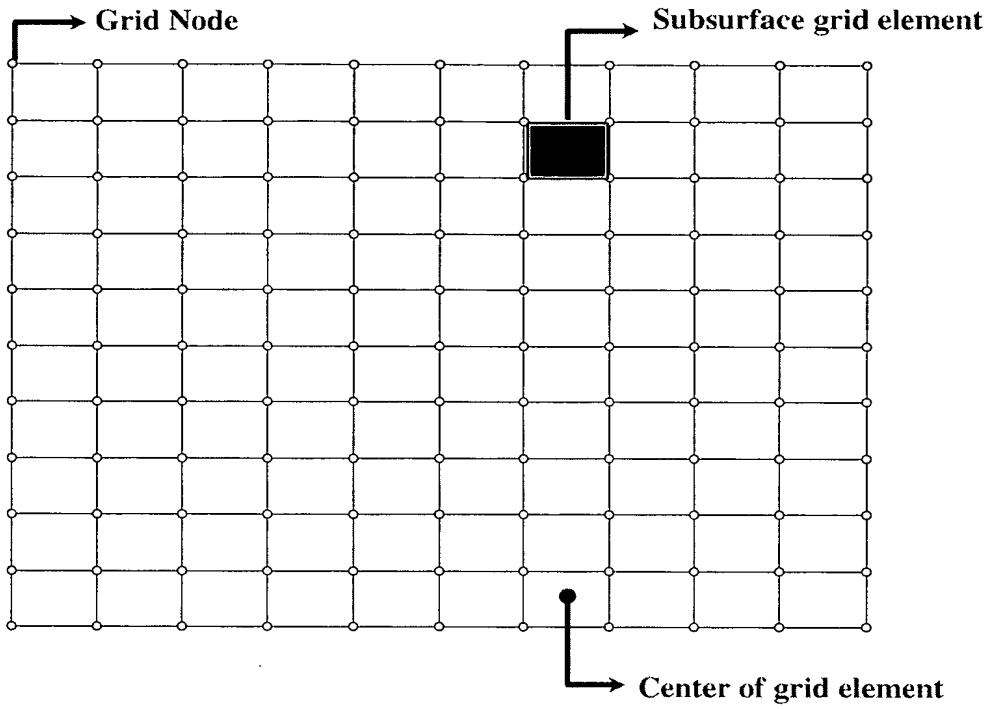


Fig. 5

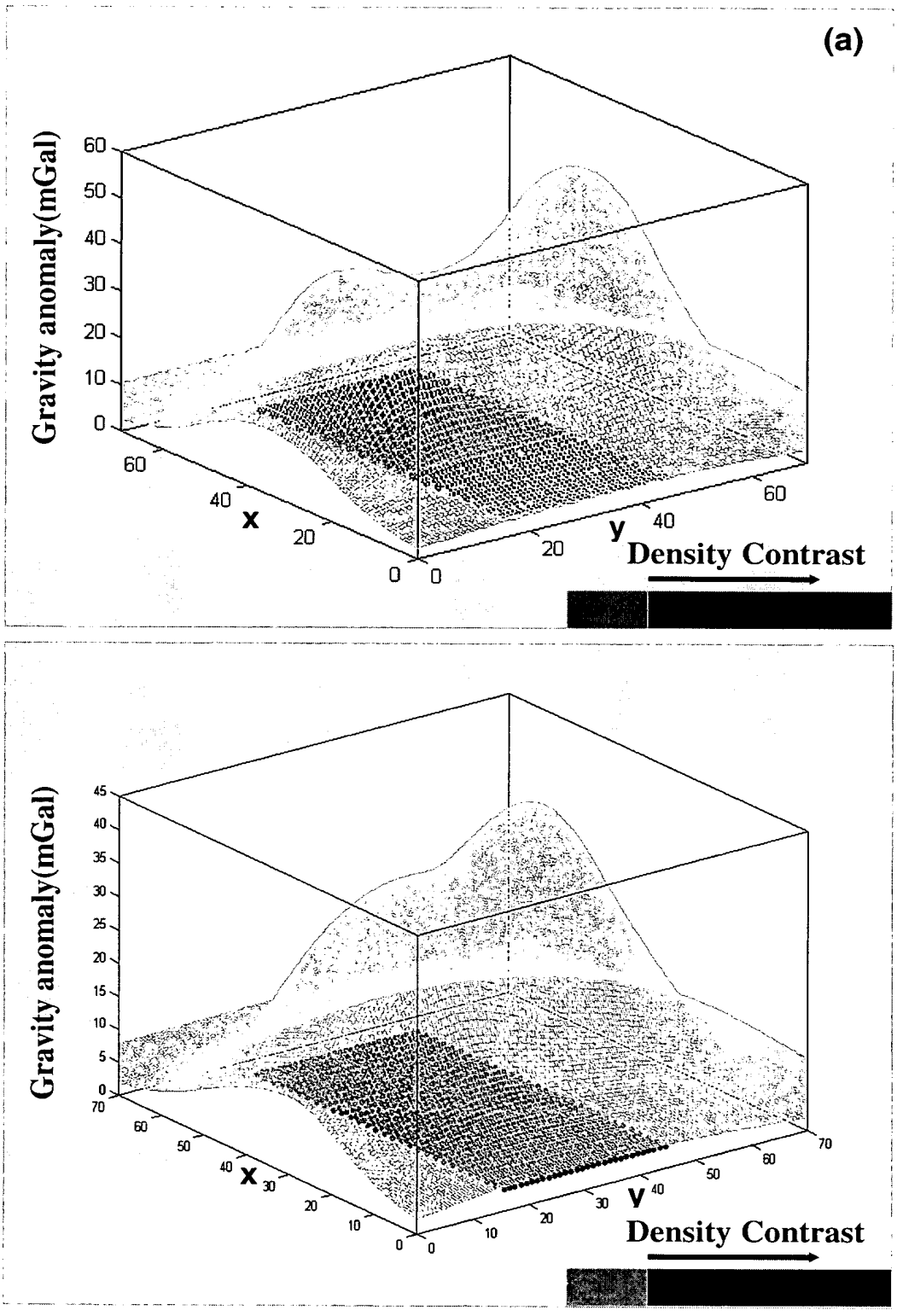

(a)
Gravity anomaly(mGal)
60
50
40
30
20
10
0
60
40
x
20
0
0
20
40
60
y
Density Contrast
(b)
Gravity anomaly(mGal)
45
40
35
30
25
20
15
10
5
0
70
60
50
40
x
30
20
10
0
0
10
20
30
40
50
60
70
y
Density Contrast

Fig. 6

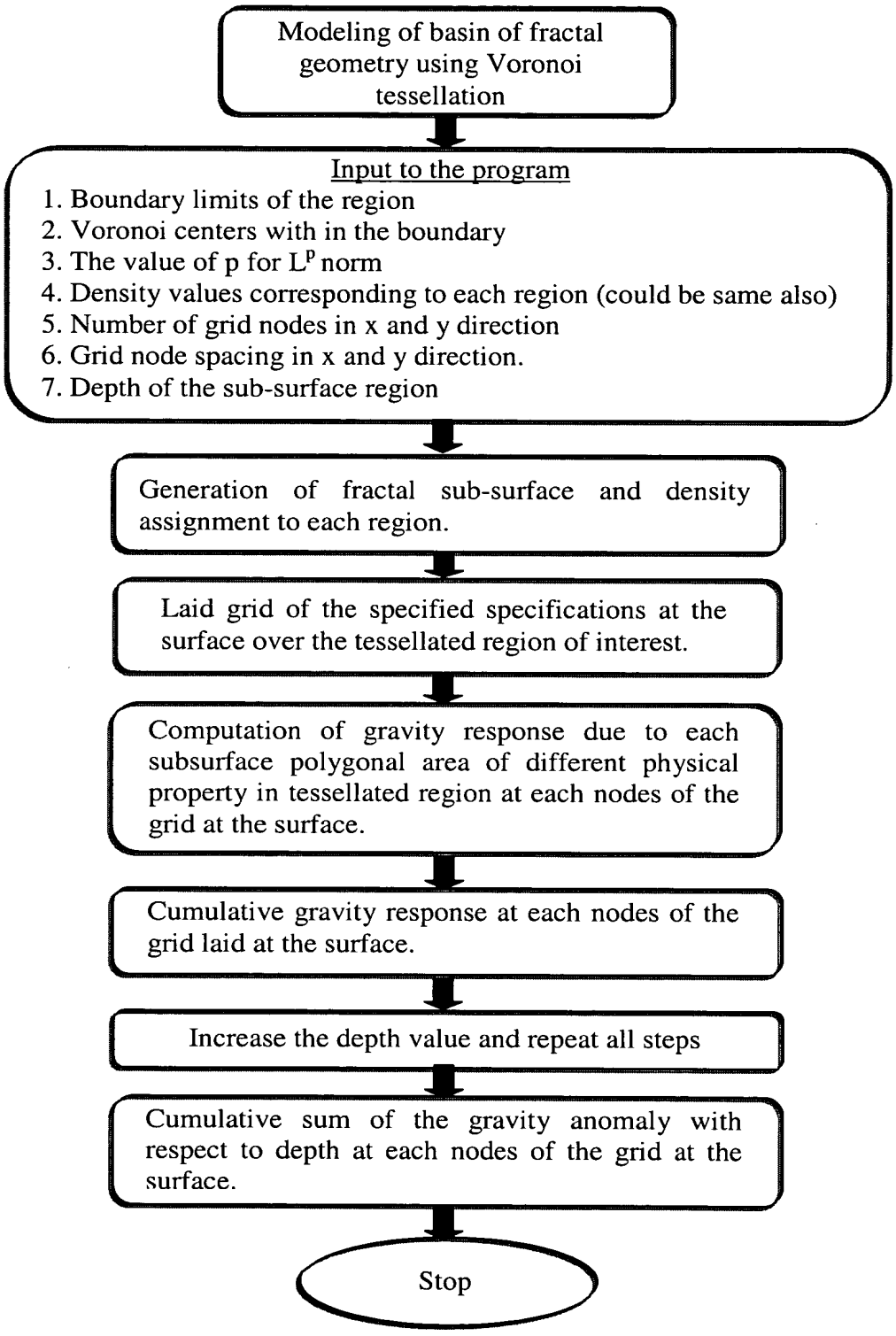

Modeling of basin of fractal geometry using Voronoi tessellation
Input to the program
1. Boundary limits of the region
2. Voronoi centers with in the boundary
3. The value of p for L^p norm
4. Density values corresponding to each region (could be same also)
5. Number of grid nodes in x and y direction
6. Grid node spacing in x and y direction.
7. Depth of the sub-surface region
Generation of fractal sub-surface and density assignment to each region.
Laid grid of the specified specifications at the surface over the tessellated region of interest.
Computation of gravity response due to each subsurface polygonal area of different physical property in tessellated region at each nodes of the grid at the surface.
Cumulative gravity response at each nodes of the grid laid at the surface.
Increase the depth value and repeat all steps
Cumulative sum of the gravity anomaly with respect to depth at each nodes of the grid at the surface.
Stop

Fig. 7